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|---|--|---|--|---|---|--|
| 138-144 MHz (138-141 Space-to-Earth) (141-144 Earth-to-Space) | None | FIXED MOBILE This band is the main frequency band for the Aeronautical Mobile (OR) Service, and any changes to the current use would have to be coordinated among the European countries and the U.S. | Region 1 AERO. MOBILE (OR) SPACE RESEARCH 600, 601, 602, 604 Region 2 FIXED MOBILE /RADIOLOCATION/ SPACE RESEARCH (Space-to-Earth) Region 3 FIXED MOBILE SPACE RESEARCH (Space-to-Earth) 599, 603 | Uplink and / or Downlink | FDMA and CDMA - Operation Similar to Existing NMHC Sharing - Dynamic Channel Avoidance - Low Output Power | U.S. footnote 630: Fixed & Mobile "generally" limited to military operations, similar to 148.0-149.9 MHz 599: In Australia, band is allocated to broadcasting until that service can be moved to regional broadcast bands 603: In China, band is allocated to radio location on primary basis |
| PRIORITY TWO CANDIDATES | | | | | | |
| 157.0375-174 MHz | MARITIME MOBILE (part) LAND MOBILE (part) (May be scheduled for narrow-band use only in 1995) | FIXED (part) MOBILE (part) | Region 1 FIXED MOBILE (except aeronautical mobile) Region 2 & 3 FIXED MOBILE | Space-to-ground direction | FDMA sharing similar to 137-138 MHz band: - Band segmentation CDMA sharing - low pfd at ground | Wide band-width ideal for downlink for FDMA and CDMA systems - FDMA wide channel selection - CDMA wide bandwidth allows reduced pfd at ground 616-163-167 is Space Operation Service (S-g) in China (Article 14) 615-162-174 is broadcasting in Morocco 617-167-174 is broadcasting in Afghanistan, China, Pakistan 618-170-174 is broadcasting in Japan |
| 450-460 MHz | LAND MOBILE Space Research and Space Operations (FN664 450 MHz) Remote pickup broadcast 450-451, 455-456 Public safety, industrial, land transportation (451-454, 456-459). | Space Research and Space Operations (FN664 450 MHz) Veteran's medical programs depend upon the use of biomedical telemetry and telecommunications in conjunction with nongovernment medical activities. Some services considered public safety services This band being considered for rechannelization | Region - All FIXED MOBILE | Uplink and Downlink, including Potential for feed links | CDMA - Low Output Power - Low PFD in Downlink - Band Segmentation FDMA Dynamic channel avoidance | Secondary allocation to Space Research Easy to share with FDMA and CDMA MSS systems Potential IETRA band for Europe |

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|-----------------------------------|--|-------------------------------|---|----------------------------------|---|---|
| 470-512 MHz | <p>BROADCASTING: - Chan. 14 to 20</p> <p>LAND MOBILE (Public safety, industrial, (and transportation, domestic public)</p> <p>Broadcasting plans to give up its analog channels and the change to HDTV may free spectrum</p> | none | <p><u>Regions 1,2,3</u></p> <p>BROADCASTING (8 MHz channels for channels 21-34 Reg 1)</p> <p><u>Region 2</u> Fixed & Mobile</p> <p><u>Region 3</u> FIXED & MOBILE</p> | Uplink and downlink, feederlinks | <p>Sharing easily accomplished with fixed and mobile systems if reallocation of broadcasting spectrum occurs due to low use of UHF channels</p> <p>Possible long-term NVWG MSS allocation</p> | 10 MHz for the NVWG MSS service should be allocated on a world-wide basis |
| 512-806 MHz (less 608-614 MHz) | <p>BROADCASTING</p> <p>RADIO ASTRONOMY (608-614 MHz)</p> <p>Broadcasting plans to give up its analog channels and the change to HDTV may free spectrum</p> | RADIO ASTRONOMY (608-614 MHz) | <p><u>Region 1</u></p> <p>BROADCASTING (Ch 21-34 & 35-69) FIXED</p> <p><u>Region 2</u></p> <p>BROADCASTING RADIO ASTRON. Mobile Satellite (E-S) - 608-614 MHz</p> <p><u>Region 3</u></p> <p>FIXED, MOBILE, BROADCASTING RADIOLOCATION</p> | Uplink and downlink, feederlinks | <p>Sharing easily accomplished with fixed and mobile systems if reallocation of broadcasting spectrum occurs due to low use of UHF channels</p> <p>Possible long-term NVWG MSS allocation</p> | 10 MHz for the NVWG MSS service should be allocated on a world wide basis |

LOWEST PRIORITY CANDIDATES

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|-------------|---|---|---|----------------|---|---|
| 806-824 MHz | <p>LAND MOBILE</p> <p>Private land mobile (806-824)</p> <p>Domestic public land mobile (824-849, 869-894)</p> <p>Aeronautical public correspondence airphone (849-851, 894-896)</p> <p>General purpose mobile (901-902)</p> | Some portion of this band is used for high-power U.S. Navy shipborne long-range search radars under footnotes US268 and G2. These radars serve a critical role in defense of the fleet, and are also used while in port | <p><u>Region 2</u></p> <p>FIXED</p> <p>MOBILE</p> <p>BROADCASTING</p> | Space-to-Earth | <p>FDMA and CDMA</p> <p>- Band Segmentation</p> <p>- Low Output Power</p> | <p>Need to Share With Naval Applications Without Interference</p> <p>Heavy use of SMR in band</p> <p>May be available for NVWG MSS use, but is low priority due to heavy use and high powered systems</p> |
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| 896-901 MHz (is portion of 890-902 MHz band) | LAND MOBILE (12.5 KHz channels paired with 935-941 MHz band) | Radiolocation (limited to military services) | <u>Region 1</u> FIXED, MOBILE BROADCASTING <u>Region 2</u> FIXED, MOBILE <u>Region 3</u> FIXED, MOBILE BROADCASTING Radiolocation | Earth-to-space (in conjunction with 935-941 MHz band) | FDMA and CDMA sharing with private land mobile in the same bands - Band segmentation - Low output power - Dynamic channel avoidance | Growing use of private land mobile in the U.S. |
| 932-935 MHz and 941-944 MHz | FIXED This band is paired with the 941-944 MHz band and channelized for point-to-point voice and data services. The 932-935 MHz end of the band is used for the single channel response from a remote location for point to multipoint multiple address services. | FIXED The 932-935 MHz and 941-944 MHz bands are shared by government and nongovernment fixed service users. It has recently been allocated for federal use. Use for low-capacity fixed systems is anticipated. Many federal agencies expect heavy government and nongovernment use for point-to-point and point-to-multipoint communications. Functions include support for aviation activities, remote meter ready for electric power marketing and light route radio relay. The latter includes recommendation of light route systems from higher bands. | <u>REGION 2</u> FIXED MOBILE except aeronautical mobile Radiolocation | 932-935 Uplink 941-944 Downlink Possible feeder links in Uplink | FDMA and CDMA - Dynamic Channel Avoidance - Low Output Power - Low PFD in Uplink - Geographic Separation - Band Segmentation | Fixed channelization offers possible use of interstitial spectrum in both directions. Wide band spread spectrum with attendant low pfd's is practical use. low priority for NVNG MSS use due to large number of applicants for use of band (60,000) |
| 935-941 MHz | LAND MOBILE Private land mobile trunked and conventional systems in 12.5 KHz channels paired with 896-901 MHz | -Radiolocation (limited to military services (G2) on a secondary basis to non-government LAND MOBILE operations (G2, US116, US215, US268) | <u>REGION 2</u> FIXED MOBILE except aeronautical mobile Radiolocation | Uplink | FDMA and CDMA - Dynamic Channel Avoidance - Low Output Power - Low PFD in Uplink - Geographic Separation - Band Segmentation | Fixed channelization offers possible use of interstitial spectrum in both directions. Wide band spread spectrum with attendant low pfd's is practical use. |

APPENDIX 3

Comments Filed in Response to NOI in IC Docket No. 94-31:

1. Aeronautical Radio, Inc.
2. AirTouch Communications
3. American Mobile Satellite Corporation
4. American Radio Relay League
5. Association of American Railroads
6. Association for Maximum Service Television, Inc. & Other Major Television Broadcasting Entities
7. COMSAT Mobile Communications
8. COMSAT World Systems
9. Constellation Communications, Inc.
10. DBS Industries, Inc.
11. Ellipsat Corporation
12. GE American Communications, Inc.
13. George Jacobs & Associates & FCC International Broadcast Stations Licensees
14. Hughes Space and Communications Company & Hughes Communications Galaxy, Inc.
15. Intelligent Vehicle-Highway Society of America
16. Loral/Qualcomm Partnership, L.P
17. Motorola Satellite Communications, Inc. & Iridium, Inc.
18. National Association of Shortwave Broadcasters
19. Orbital Communications Corporation
20. STARSYS Global Positioning, Inc.
21. Teledesic Corporation
22. TRW, Inc.
23. United States Satellite Broadcasting Company, Inc.

Reply Comments to NOI in IC Docket No. 94-31:

1. Aerospace and Flight Test Radio Coordinating Council
2. American Mobile Satellite Corporation
3. American Radio Relay League
4. Association for Maximum Service Television, Inc.
5. AT&T Corp.
6. COMSAT Mobile Communications
7. COMSAT World Systems
8. CTA Incorporated
9. Ellipsat Corporation
10. GE American Communications, Inc.

Reply Comments to NOI in IC Docket No. 94-31 *continued*:

11. Hughes Space and Communications Company & Hughes Communications Galaxy, Inc.
12. Loral/QUALCOMM Partnership, L.P.
13. Motorola Satellite Communications, Inc. & Iridium, Inc.
14. National Association of Broadcasters
15. PanAmSat, L.P.
16. Primosphere Limited Partnership
17. Securicor Datatrak Limited
18. Teledesic Corporation
19. TRW, Inc.